

REMARKS/ARGUMENTS

The Office Action mailed October 23, 2003 has been reviewed and carefully considered. Claims 23, 27, 36, and 43 have been amended. Claims 1-49 are pending in this application, with claims 1, 27, and 40 being the only independent claims. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed October 23, 2003, the Examiner states that Paper No. 7 listed drawing informalities which now require correction. Paper No. 7 merely states that the drawings are informal. The attached set of formal drawings corrects the informalities. It is respectfully submitted that these drawings should now be accepted by the Examiner.

The specification is objected to because "voiced" is misspelled on page 17, line 12 and because it contains an embedded hyperlink on page 17, lines 6 and 18. The specification has been amended to correct the typographical error and to delete the embedded hyperlinks. Accordingly, it is respectfully requested that the objections to the specification now be withdrawn.

Claims 27 and 40 are objected to because the Examiner states that the last feature of the claim is subject to interpretation. The Examiner has proposed indentation to clarify the claims. The claims have now been indented as proposed by the Examiner. Claim 27 has been amended to implement the indentation. Claim 40 did not require an amendment. Accordingly, it is respectfully requested that the objections to claims 27 and 40 now be withdrawn.

Claims 23, 36, and 43 are objected to as including the adjective "short" which is deemed indefinite by the Examiner. Each of the claims has been amended to recite that a "short message service message". Short message service (SMS) has a specific meaning in the art of

mobile communication. Accordingly, these claims are now definite and the objection to claims 23, 36, and 43 should now be withdrawn.

Claims 1-17, 27-32, 40-41, and 47-49 stand rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,012,030 (French-St. George) (hereafter referred to as 'French') in view of U.S. Patent No. 4,481,384 (Matthews).

Claims 18-26, 33-39, and 42-46 stand rejected under French-St. George and Matthews in further view of U.S. Patent No. 6,377,793 (Jenkins).

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief summary of the present invention is appropriate. The present invention relates to a method and apparatus for activating speech recognition in a terminal. As discussed in the Background section of the specification, speech recognition is a high consumer of a terminal's power and processing time (see page 2, lines 11-13 of the present specification). Accordingly, it is not practical to have speech recognition active at all times in a device such as a wireless terminal or mobile phone which has limited power and processing capacity (page 2, lines 15-17). It is also impractical to require manual activation of speech recognition in the device because the user must divert attention to the device to perform the additional step of activating the speech recognition, thus detracting from the advantages of speech recognition (page 2, line 18 to page 3, line 4).

The present invention overcomes the above-described problems by automatically activating speech recognition at a terminal in response to the detection of an event (page 4, lines 7-10). The terminal maintains the speech recognition in an activated state for a speech recognition time period. During this speech recognition time period, the terminal determines whether a voiced command or a command input by the primary input of the terminal is received (page 4, lines 12-13). After the speech recognition time period has elapsed, the speech recognition in the terminal is

deactivated. If the second command is not received during the speech recognition time period, it may be received thereafter only through the primary input (page 4, lines 13-15).

Independent claim 1 is drawn to a method for activating speech recognition and recites automatically activating speech recognition in response to an event detected at the terminal. Independent claim 1 further recites that the speech recognition is deactivated if a second command has not been received and the speech recognition time period has elapsed and that the second command can be input only by the primary input after the speech recognition is deactivated.

French discloses a device, system, and method for managing speech and audio prompts in response to a user's current interaction modality. According to French, a communications device has a multimodal user interface, i.e., more than one mode of input and output (see col. 1, lines 61-65 and col. 4, lines 25-29). Furthermore, the state of the speech interface in the device of French is dynamically switchable from a foreground state to a background state, wherein speech interface, audio prompts, and speech-based error recovery are fully implemented in the foreground state, and speech prompts are replaced by a limited set of audio prompts (or earcons) and no speech-based error recovery is implemented in the background state (col. 3, lines 30-32, 40-42, and 45-47). French also teaches that the device may dynamically select the alternative states of speech interfaces, i.e., the foreground state or the background state, based on a user's input modality (col. 4, lines 33-35). For example, if the user's input modality is speech input, the foreground state is selected and if the user's input modality is non-speech input the background state is selected (col. 4, lines 9-14).

Accordingly, French discloses a device in which the speech interface is always activated in either the foreground state or the background state. As pointed out by the Examiner, the Background section of the French reference discloses the operation of speech recognition for a

limited time window (col. 2, lines 47-50). However, French further explains in col. 2, line 55-col. 3 line 2, that the use of time windows is undesirable, and therefore teaches away from the use of time windows or time limits. In the Examiner's response to our previous arguments on page 3 of the Office Action, the Examiner states that the prior art can not be taken to teach away from a feature while at the same time, the same prior art is said to disregard the feature. We will now clarify our statements. The invention disclosed in French does not use, i.e., disregards, the use of time limits for speech recognition. Instead it discloses a system and method in which speech recognition is in a foreground state or a background state as described above. The French reference also teaches away from using time windows in speech recognition because in the description of the background of the invention, French discloses at col. 2, line 55-col. 3, line 2 that the use of time windows is undesirable.

In any event, French fails to teach or suggest deactivating speech recognition if no commands have been received within a predetermined period after an event, as expressly recited in independent claim 1.

Matthews discloses a Voice recognizing telephone call denial system which allow a user to make a call if the user's password and voice are recognized. According to Matthews, once a subscriber gains access to a central office trunk, the central office portion of the trunk is terminated in the present circuit and the PABX portion of the trunk is temporarily split and connected to a speech recognition circuitry (see col. 2, lines 36-41 of Matthews). The subscriber then speaks into the telephone handset, giving a password, his name, or another predetermined word (col. 2, lines 41-43). If the voice is not recognized, use of the trunk is denied or limited; if the voice is recognized, the system provides to the user a class of service associated with the user (col. 5, line 65 - col. 6, line 2). As indicated by the Examiner, col. 11, lines 66-68 of Matthews discloses that the speech

recognition may be deactivated after a predetermined period of time. In other words, the system of Matthews does not wait indefinitely for a user to voice his or her password.

It is respectfully submitted that independent claim 1 is allowable over French in view of Matthews because (1) there is no motivation to combine the deactivation after a period of time feature of Matthews with the method and device of French and (2) even if they were combined, French and Matthews fail to teach or suggest the claimed invention.

Regarding the first reason, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). As discussed above, French discloses a multimodal user interface in which a user can either input a voiced command or input a command using an input. French discloses that speech interfaces typically operate within a limited time window. However, French further states that the implementation of time windows for response in speech recognition is disadvantageous because users are not aware of how long they have to provide a voiced input (see col. 2, line 63 - col. 3, line 2). French overcomes these disadvantages of time windows by implementing a foreground state and a background state for speech recognition. To apply a time window for speech recognition to French would go against the teachings of French and therefore would not be implemented. Accordingly, the time window disclosed by Matthews would not be implemented in the device and method of French because French teaches that such time windows are disadvantageous.

Even if the teaching of Matthews were combined with the teaching of French, the combined teachings still fail to teach or suggest the claimed invention. As described above, French discloses a device having a multimodal interface, wherein one of the interfaces is a

speech recognition interface. Accordingly, a user can input commands using a voiced command or through an input device. Matthews discloses using voice recognition for providing a user with the appropriate level of access to a system. Accordingly, Matthews is not inputting a command using voice recognition. Rather, Matthews uses voice recognition to determine the identification of a user. Based on the determination, the appropriate level of access is provided to the user. If Matthews were combined with French, the user of the French device would have to input a password or other predetermined word to the device within a predetermined time period to gain access to the device. After, access is gained using the user's service class, the user would then be able to submit multimodal commands to the device or French according to the teaching of French. Accordingly, the combined teachings of French and Matthews fail to teach or suggest the step of deactivating speech recognition at the terminal if it is determined that the second command is not received by the speech recognition or the primary input during a speech recognition time period, because French teaches that speech recognition is always available for receiving voiced commands once access is granted to the device.

In view of the above amendments and remarks, it is respectfully submitted that independent claim 1 is allowable over French in view of Matthews under 35 U.S.C. §103.

Independent claims 27 and 40 are directed to a terminal capable of speech recognition and a system for activating speech recognition in a terminal, respectively. Both of these claims recite that speech recognition is activated in response to an event at the terminal and that the speech recognition is deactivated after a speech recognition time period has elapsed.

As stated above, French in view of Matthews fails to teach or suggest deactivating the speech recognition after a speech recognition time period because French teaches that the device

is always available for receiving voiced commands. Accordingly, it is respectfully submitted that independent claims 27 and 40 are also allowable over French under 35 U.S.C. §103.

Dependent claims 2-26, 28-39, and 41-49, each being dependent on one of independent claims 1, 27, and 40, are deemed allowable for the same reasons expressed above with respect to independent claims 1, 27, and 40.

Furthermore, it is respectfully submitted that independent claims 18-26, 33-39, and 42-46 are allowable over French in view of Matthews and further in view of Jenkins. Jenkins relates to a device and method for recording messages at coordinate waypoints in a subscriber service. Although the subscriber device may be a wearable computer (see col. 5, lines 29-40), there is no teaching or suggestion for a context aware application. There is no teaching or suggestion in Jenkins that speech input recognition is activated by receipt of a context related event at the terminal. In col. 5, lines 31-41, Jenkins mentions devices which communicate with commercial wireless networks. Based on the context in which it is used, Jenkins is referring to wireless communication networks. Accordingly, Jenkins fails to disclose local access point and a local area network, as recited in dependent claim 24.

Furthermore, Jenkins fails to teach or suggest "a wearable computer with a context aware application", as recited in dependent claims 19, 34, and 42, "an object in the environment has been selected" as recited in dependent claims 20, 36, and 42, "the notification is one of a phone call and a short message service message", as recited in dependent claims 23, 36, and 43, "connecting to one of a local access point and a local area network via short range radio technology", as recited in dependent claims 24, 37, and 44, "receiving information at the terminal from the computer environment of the terminal", as recited in dependent claims 25, 38, and 45, and "connecting to a site on the internet", as recited in dependent claims 26, 39, and 46. Accordingly, it is respectfully

submitted that independent claims 18-26, 33-39, and 42-46 are each allowable for these additional reasons.

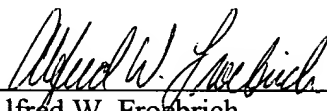
Dependent claims 47-49 each recite that the event which triggers voice recognition is either receipt of information at the terminal from the environment of the terminal or notification of an external event. The Examiner states that col. 6, lines 27-30 of French discloses this. However, the section of French referred to by the Examiner discloses that speech recognition is kept in the foreground state or switched to the foreground state in response to user input. It is respectfully submitted that user input is not information received at the terminal from the environment or notification of an external event, as recited in dependent claims 47-49. Accordingly, it is respectfully submitted that dependent claims 47-49 are allowable for these additional reasons.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

It is believed that no fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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